

PARTICIPATING FARMING TECHNIQUE OF PURE BLACK BENGAL GOAT FOR GENETIC IMPROVEMENT

Black Bengal Goat (BBG) is a very common ruminant livestock species reared all over the Bangladesh. Women mainly take care of the Black Bengal goat and men are involved in the marketing process. BBG is hardy and can survive under stress. It is popularly called as "Poor Men's Cow" and is a great source of earning and income leading to employment and food security. BBG is also famous for meat and skin quality. These goats are reared under semi intensive management system.



Women looking after the BBG
in the grazing field



Goat meat is being sold in a
local market

Most of the BBG are observed in the western part of the country. However, indiscriminate crossbreeding in the western part of the country is resulting in genetic erosion in BBG. To check this genetic erosion as well as to make genetic improvement of this valuable species for more profit for the poor people specially for the women, it is essential to take proper goat breeding program in the country. There is a number of breeding option through which genetic progress animal can be achieved. Among these, Marker Assisted Selection (MAS) is the most rapid method. To apply MAS program for genetic improvement of economic traits of BBG for generation of more income of goat farmers, a research sub-project entitled "**Studies on the Quantitative Trait Loci of Economic Traits in Black Bengal Goat**" financed by PIU-BARC under NATP Phase-1 was undertaken and implemented by the Department of Animal Breeding and Genetics, Bangladesh Agricultural University (BAU) for a period of 3 years.

APPROACH AND METODOLOGYH

- ❖ Established pure BBG flock in Bandarban Hill District to produce seed stock i.e. pure Black Bengal buck.
- ❖ Developed Back cross BBG progenies (Experimental goat populations) through control breeding in Natore district.
- ❖ Established animal Identification and phenotypic recording of economic traits of BBG, crossbred and back cross in Natore.
- ❖ Genotyping work is being done in Animal Genetics Laboratory of BAU.
- ❖ Introduced disease preventive measures and alternate feeds for improving goat husbandry.

ACHIEVEMENTS

- ❖ The **weight of Black Bengal goats** of the experimental populations in Natore during the last two years of experimental period has increased significantly.
- ❖ Number of goat/house hold has also increased (Figure 1).
- ❖ Income of farmers has also increased.

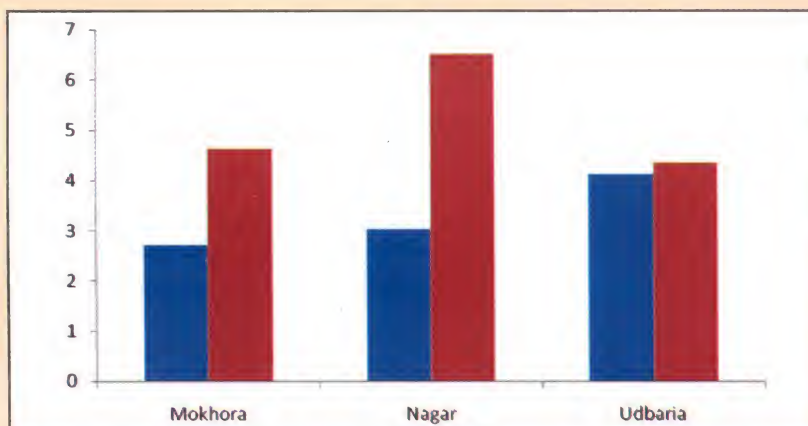


Figure 1. Changes in number of goat/house hold in the experimental site through intervention. Red colour indicates number of goat at the start, Blue colour indicates number of goat after 2 year

Seed stock of Black Bengal goat (Figure 2) has been produced successfully in Bandarban Hill District. The performances of seed stock has been described below



Figure 2. A flock of seed stock in Bandarban

- ❖ The birth weights of kids of seed stock in Bandarban Hill District range from 1 to 2 kg with a mean of 1.07 ± 0.13 kg.
- ❖ Weights of kids of seed stock in Bandarban Hill District range from 10 to 12 kg with a mean of 9.67 ± 0.16 kg at 3 months of age.
- ❖ The litter size of does of seed stock in Bandarban Hill District range from 1 to 3 with a mean of 1.82 ± 0.06 (Figure 3).
- ❖ The kidding interval of does of seed stock in Bandarban Hill District range from 133 to 420 days with a mean of 233 ± 10.78 days.

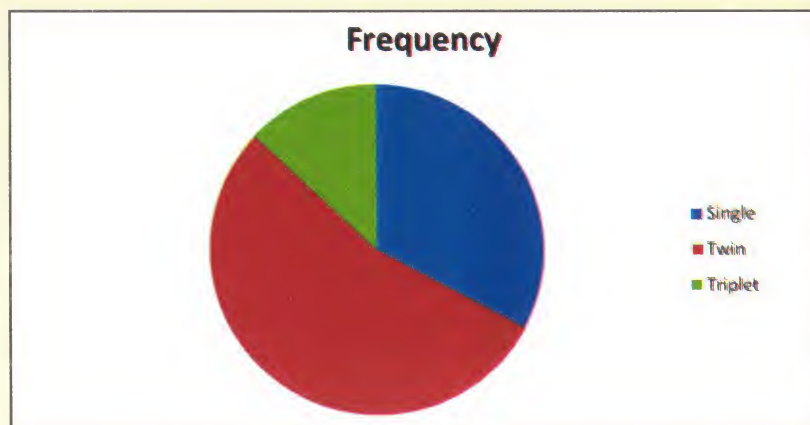


Figure 3. Frequency of litter size of Seed stock

SUCCESS STORIES

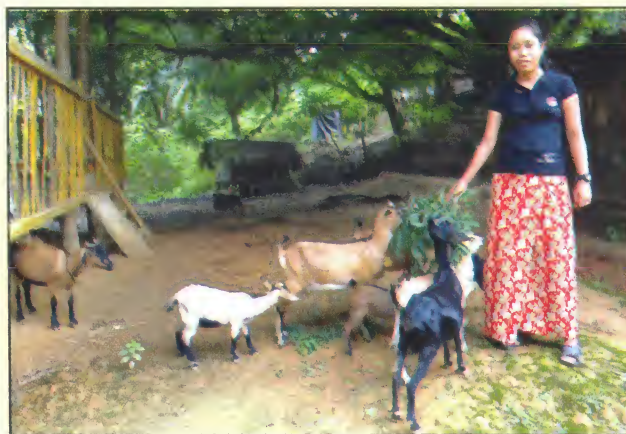
Case - I

Mr. Mashiur Rahman is an unemployed youth and a farmer working as a volunteer in the experimental site of Natore. At the start of this program, he owned 9 goats. In the last 2 years, he was trained on record keeping and improved husbandry practices of Black Bengal goat. He sold 16 goats in last 2 years and earned 45,000.00 Taka (Gross income). He possesses 14 goats at present



Case - II

Miss. Esha ching is an unemployed girl and a farmer working as a volunteer in the experimental site of Bandarban. At the start of this program, the girl owned 5 Black Bengal goats. She obtained training on improved husbandry practices of Black Bengal goat during the last 2 years. She could expand her flock. She sold 14 goats in the last 2 years and earned k.T 36,000.00. She now possesses 10 goats.



LESSONS LEARNED

- ❖ Scientific goat breeding program can be practiced in the villages for genetic improvement.
- ❖ Unemployed youth and women, when properly trained, can assist in increasing the goat production.
- ❖ Proper disease preventive measures and alternate feeds can assist in increasing per house - hold goat number and income generation.
- ❖ Black Bengal goat rearing could be employment opportunity for women.

PROMOTIONAL ACTIVITIES

As part of sub project activities, farmer training is being organized regularly in each village of sub-project area from the beginning of this study. As such a number of farmer volunteers who are trained on primary health care, identification and recording system of goat, have been produced in all four units of the sub project area. In addition to that, a national workshop on the research findings was organized in Dhaka in December, 2012. Honourable Minister, Ministry of Livestock and Fisheries, People's Republic of Bangladesh was the Chief Guest of the workshop and 80 experts from different universities, research institute, Department of Livestock Services and NGO.



Principal Investigator is discussing with the enlisted farmers in Natore in a field training program



National workshop on Research results held in December, 2012

Jointly Published by

**Bangladesh Agricultural University (BAU) and
PIU-BARC, NATP: Phase-1**



For further information and communication, please contact

Professor Dr. Md. Omar Faruque, Department of Animal Breeding and Genetics
Bangladesh Agricultural University, Mymensingh-2202

Phone: 091-67401-6 ext. 2616, Cell phone : 01714 075435, Fax: 880-91-61510

E mail: faruque_mdomar@yahoo.com